

REMARKS

This application has been reviewed in light of the Office Action dated October 20, 2009. Claims 6 and 13-16 are presented for examination, of which Claim 6 is in independent form. Claims 6 and 14 have been amended to define still more clearly what Applicants regard as their invention. Favorable reconsideration is respectfully requested.

In the outstanding Office Action, Claims 6 and 13-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,807,907 (Yamada).

Applicants submit that the independent claim, together with its dependent claim, are patentable over the cited prior art for at least the following reasons.

As discussed in the specification, an image forming apparatus (IFA), such as a copying machine or a printer, comprises an image forming unit (IFU) and a control section (Fig. 24, 1201/1216 and 1202). The IFA could be in a normal/standby mode where all units are functional, or in an energy-saving mode where at least the image forming unit is inoperative so as to consume reduced power (para. [0005]).

According to certain aspects of the present invention, the control section comprises a main CPU and a sub CPU (para. [0078]). Suppose that an external apparatus, such as a PC, requests for the status of the IFA or specifically the IFU.

I. When the IFU becomes busy, the main CPU also becomes busy and the IFA is in the normal mode. The main CPU will respond to the status request from the external apparatus (para. [0055] and [0230]).

II. When the IFU is idle, the main CPU gets ready to go into a halt state before the IFA enters a sleep mode. The main CPU sends the current status to a server apparatus, authorizing the server apparatus to respond to status requests from any external apparatus (para. [0245] and [0246] and Fig. 19B).

III. The main CPU then goes into a halt state, and the IFA enters the sleep mode.

IV. When the status of the IFU has somehow changed from the status sent to the server apparatus in the absence of any image forming request, the sub-CPU activates the main CPU, which gets out of the halt state, sends the current status to the server apparatus, and goes back into the halt state (para. [0247]). The IFA remains in the sleep mode during this time (Fig. 16, 1507).

V. When an image forming request comes in, the IFU needs to get busy and the server apparatus wakes up the main CPU to get out of the halt state (para. [0248] and Fig. 16, 1510).

These steps are then repeated (Fig. 17). In this way, the sub-CPU functions as a monitoring apparatus that remains active (para. [0254]), while the main CPU is responsible for, among other things, transmitting the latest status of the IFA or specifically the IFU to a server apparatus. The IFA is in the normal mode when an image forming request is being processed, and the server apparatus responds to a request for the status of the IFA from an external apparatus when the IFA is in the sleep mode.

Specifically, as noted in Step IV above, the status of an IFU may somehow change even in the absence of any image forming request from an external apparatus. When that happens, since there is no image forming request to fulfill, it is not necessary to power up an entire IFA. All that is required is to make the latest status available to any external apparatus which might be interested at some point. Since the IFA remains in the sleep mode, the server apparatus continues to be responsible for responding to status requests, and the sub-CPU activates the main CPU exclusively for transmitting the updated status to the server apparatus.¹

Claim 6 recites, among other features, “a second control device configured to output to said first control device a command for resuming from the halt state, in a case where there is any change between a latest status... and the status detected earlier when the image forming apparatus is to shift to the energy-saving mode, in the absence of an image

¹ It is to be understood that the scope of the claims is not limited by the details of this or any other embodiment that may be referred to.

forming request, wherein said first control device transmits the latest status to the server apparatus, after resuming from the halt state responding to the command output by said second control device, and thereafter shifts back to the halt state, without the image forming apparatus shifting to the standby mode.”

These features are not believed to be disclosed or suggested in *Yamada*. As discussed in the Amendment of July 20, 2009, *Yamada* does not teach the performance of any action when the status of an IFA or specifically an IFU has changed in the absence of an image forming request from an external apparatus. Consequently, the substitute device in *Yamada* will continue to respond to any status request with an outdated status. Even assuming that *Yamada* did teach the performance of some action when the status has changed, it does not appear obvious at all from *Yamada* to have a part of a control section of the IFA, which serves a constant monitoring function, to temporarily activate another part of the control section, which is normally responsible for transmitting the latest status to a substitute device, to do just that, with the IFA remaining in the sleep mode the entire time, as recited in Claim 6.

The portions of *Yamada* cited in the Office Action as disclosing the cited features of Claim 6 describe merely what happens with respect to the processing of image forming requests – upon “detecting a magic packet” (*see* col. 10, lines 49-53 and col. 11, 38 and 39). Specifically, these portions discuss that when the IFA or specifically the IFU is processing an image forming request, the IFA is in the normal mode – “power supply is resumed... to the various components of the printer” (*see* col. 11, lines 40-44) – and when it is not processing and has not processed an image forming request, it is in the sleep mode (*see* Fig. 7). It does not involve a situation in which, while the IFA remains in the sleep mode, the status of the IFA or specifically the IFU has somehow changed in the absence of an image forming request, and a part of the control section of the IFA becomes activated to transmit the updated status to the substitute server apparatus.

Accordingly, Claim 6 is believed patentable over *Yamada*.

A review of the other art of record has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as a reference against the independent claim. Therefore, the independent claim is believed to be allowable over the art of record.

The other claims in this application are each dependent from the independent claim discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

This Amendment After Final Action is believed clearly to place this application in condition for allowance and its entry is therefore believed proper under 37 C.F.R. § 1.116. In any event, however, entry of this Amendment After Final Action, as an earnest effort to advance prosecution and reduce the number of issues, is respectfully requested. Should the Examiner believe that issues remain outstanding, the Examiner is respectfully requested to contact Applicants' undersigned attorney in an effort to resolve such issues and advance the case to issue.

In view of the foregoing amendments and remarks, Applicants again respectfully requests favorable reconsideration and allowance of the present application.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

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